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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO.  |
|--|-------------|----------------------|---------------------|-------------------|
| 10/600,967   | 06/20/2003  | Hirotaka Hara        | 00650-0741          | 6569              |
| 32116  | 7590        | 12/22/2005           |                     | EXAMINER          |
| WOOD, PHILLIPS, KATZ, CLARK & MORTIMER<br>500 W. MADISON STREET<br>SUITE 3800<br>CHICAGO, IL 60661 |             |                      |                     | YAO, SAMCHUAN CUA |
|  |             |                      | ART UNIT            | PAPER NUMBER      |
|  |             |                      | 1733                |                   |

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/600,967             | HARA ET AL.         |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Sam Chuan C. Yao       | 1733                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 31 October 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-27 is/are pending in the application.  
4a) Of the above claim(s) 18-24,26 and 27 is/are withdrawn from consideration.  
5)  Claim(s) 10-13 and 15 is/are allowed.  
6)  Claim(s) 1-9,14,16-17 and 25 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Election/Restrictions***

1. Newly submitted claims 26-27 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the patentability in the independent claims of the elected group and the patentability of a newly added group are based on divergent subject matters. The differences between these groups are critical and significant to the extent that the inventions constitute *prima facie* patentably distinct combinations, absent evidence to the contrary. This can readily and clearly be demonstrated by a side-by-side comparison of the independent claims. For instance, claim 1 in group 1 requires forming a 1<sup>st</sup> sleeve component and a 2<sup>nd</sup> sleeve component into continuous shape and joining 1<sup>st</sup> and 2<sup>nd</sup> sleeve components after these two components have been formed, where the 1<sup>st</sup> and 2<sup>nd</sup> components “*residing one within the other*”; but does not require “*forming a second ... sleeve component ... against a second mold assembly*; and after forming ... first ... sleeve component; joining the first and second belt/belt sleeve components ... thereafter radially urging one of the first and second ... components to against the other ...” as recited in claim 26 of a newly added group; and, vice versa. Similarities of the independent claims are merely superficial, since certain significant limitations in one of the groups find no counterpart in the other group(s) and vice versa. Presently, no claim is generic. Once all claims in the elected group is found to be allowable, it is suggested to incorporate ALL limitation in

the broadest independent claim of the elected group into claim 26 to rejoin and make the newly added group allowable.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 26-27 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1-9, 14, 16-17, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art (APA) directed to JP 2708717 in view of Schanin et al (US 5,176,583) and Wood (US 5,733,399).

With respect to claims 1-2, 14 and 16-17, the APA discloses a process of making a V-ribbed belt. The process involves forming a ribbed compression rubber layer by extruding the compression rubber layer in a length-wise direction. The ribbed compression rubber is laminated and vulcanized in a molding die to a cushion rubber layer with a load carrying layer embedded in the cushion rubber layer (numbered paragraph 9). The process of the APA differs from claim 1 in that, the APA does not teach forming a ribbed compression rubber layer by applying a radial

force to a compression rubber sleeve in a molding die. However, it would have been obvious in the art to apply a heat-molding operation (i.e. apply radial force to a compression rubber sleeve in a molding die) instead of using an extrusion operation in forming a ribbed compression rubber layer in the process of the APA, because: a) it is well known in the art of making V-shaped drive belt to interchangeably use an extrusion operation or a molding operation to preform "*all belt components: the compression member 2, the load-carrying member 6 and the (optional) tension member 12*" prior to bonding the various members together as exemplified in the teachings of Schanin et al (col. 4 line 45 to col. 5 line 39); and b) applying a radial force to a rubber sleeve in a heated molding die by an outward expansion of a bladder to form a ribbed drive belt is conventional in the art of making V-ribbed belt as exemplified in the teachings of Wood (abstract; figures 8A-8B).

As for an added limitation of a 1<sup>st</sup> and 2<sup>nd</sup> sleeve components being formed into a continuous shape, since the 1<sup>st</sup> and 2<sup>nd</sup> components in a modified process of the APA are NOT segmented and formed of sleeve, this added limitation is taken to read on the 1<sup>st</sup> and 2<sup>nd</sup> sleeve components of the modified APA.

As for another added limitation of joining 1<sup>st</sup> and 2<sup>nd</sup> sleeve components after 1<sup>st</sup> and 2<sup>nd</sup> sleeve components are formed, it should be noted that, claim 1 as present recited does not require positively applying any radial force to a 2<sup>nd</sup> sleeve component against a molding surface during the 2<sup>nd</sup> sleeve component forming step nor does this claim define positively the configuration of a 2<sup>nd</sup> sleeve component after being formed. While it would appear that components of a belt of the APA are

serially belt-up on a molding surface, the recited limitation nevertheless failed to define over a process where components are conventionally built-up serially on a molding drum. In other words, this limitation fails to distinguish over the building up of a cushion rubber and a load carrying cord onto a molding drum surface to form a 2<sup>nd</sup> sleeve component and then placing a preformed ribbed compression rubber layer (i.e. a 1<sup>st</sup> sleeve component) onto the 2<sup>nd</sup> sleeve component.

As for the last added limitation of “*... the first and second belt/belt sleeve components residing one within the other*”, this limitation is taken to naturally flow from the modified process of the APA, because a portion of underside surface compression rubber is expected to fuse into a portion of a cushion rubber during a vulcanization process. In any event, since it is old in the art to manufacture separately various components of a drive belt as exemplified in the teachings of Schanin et al, it would have been obvious in the art to also form separately a 2<sup>nd</sup> belt sleeve component comprising a load carrying cord and a cushion rubber layer before it is joined to a 1<sup>st</sup> belt sleeve component.

With respect to claims 3-8, these claims would have been obvious in the art for reasons of record set forth in numbered paragraph 4 on 09-22-05.

With respect to claim 25, while none of the prior art references explicitly disclose the limitation in this claim, nevertheless, the limitation in this claim is taken to naturally flow from the modified process of the APA. As noted by Counsel on page 13 paragraph 5, “*... by performing the ribs/cog teeth before joining the second ... component, the invention affords the opportunity to avoid adverse elongation of the*

*load carrying member during the step of joining these components.*”. Since the modified process of the APA preforms ribs/cog teeth of a compression rubber before it is joined to a cushioning rubber and a load carrying cord, the same beneficial effect should/would be expected as the presently claimed limitation.

***Allowable Subject Matter***

4. Claims 10-13 and 15 allowed.
5. The following is a statement of reasons for the indication of allowable subject matter: these claims are allowable for reasons of record set forth in a prior office action dated 09-22-05 numbered paragraph 6.

***Response to Arguments***

6. Applicant's arguments filed on 10-31-05 have been fully considered but they are not persuasive.

On page 12 last full paragraph, Counsel argued that “*It does not appear that Japan '717 discloses a corresponding second ... component, consisting of at least a part of a cushion rubber layer and load carrying member, that is separately formed and thereafter attached to the first ... component. Instead, it appears that all components, including the preformed, ribbed compression rubber layer, are serially built up upon a mold and thereafter vulcanized.*” While all components are serially built up upon mold, before the components are vulcanized, nonetheless, the claims as presently recited failed to distinguish over the modified process of the APA. As noted above, the claims as presently recited do not require positively applying any radial force to a 2<sup>nd</sup> sleeve component against a molding surface during the 2<sup>nd</sup>

sleeve component forming step nor do the claims define positively the configuration of a 2<sup>nd</sup> sleeve component after being formed. For this reason, the recited 2<sup>nd</sup> sleeve component forming is taken to read on the step of building up a cushion rubber and a load carry cord. In any event, since it is old in the art to manufacture separately various components of a drive belt as exemplified in the teachings of Schanin et al, it would have been obvious in the art to also form separately a 2<sup>nd</sup> belt sleeve component comprising a load carrying cord and a cushion rubber layer before it is joined to a 1<sup>st</sup> belt sleeve component.

As for Counsel's argument regarding Wood, this reference is merely cited to show that it is known in the art to form ribs or grooves to a rubber component using a molding operation. The teachings of Wood in combination with the prior art references of record would have suggested to one in the art to mold a compression rubber in the process of the APA instead of performing an extrusion process to form ribs/grooves to the compression rubber.

### ***Conclusion***

7. Note: the claim identifier for claim 18 should read withdrawn instead of original.
8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Richard Crispino can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sam Chuan C. Yao  
Primary Examiner  
Art Unit 1733

Scy  
12-20-05